

## REMARKS

The Office Action mailed September 7, 2006 considered claims 1, 2, 4-13, 15-30 and 38-48. Claim 10 was objected to as lacking antecedent basis for "the aggregation module." Claims 1, 2, 4, 6, 10, 11, 12, 21, 25, 27, 28, 38-41 were rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US 5,956,488) hereinafter *Suzuki*. Claims 5, 7, 15-17, 20, 29, 30, 42, and 48 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki* in view of Kuhn (US 2002/0157112) hereinafter *Kuhn*. Claims 8, 9, and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki* in view of Durana et al. (US 6,018,765) hereinafter *Durana*. Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki*. Claims 18 and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki* in view of *Kuhn* and further in view of *Durana*. Claims 22-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki* in view of McClain et al. (US 6,772,214) hereinafter *McClain*. Claims 43-45 were rejected under 35 U.S.C. 103(a) as being upatentable over *Suzuki* in view of *Brown* (US 5,771,435) hereinafter *Brown*. Claims 46 and 47 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Suzuki* in view of *Brown* and further in view of *Durana*.<sup>1</sup>

By this paper, claims 1, 10, 11, 25 and 38 have been amended, claims 4 and 44 have been cancelled, and new claims 49-52 have been added such that claims 1, 2, 5-13, 15-30 and 38-43, and 45-52 remain pending, of which claims 1, 10, 11, 25, and 38 are the only independent claims.

Regarding the objection to claim 10, Applicant's thank the Examiner for his careful review. Claim 10 has been amended to obviate the objection.

The claims are generally directed to methods and apparatus for conserving network bandwidth when media streaming across the network is involved. Each of the independent claims has been amended to recite "changing the delivery of the streaming media from a first format to a multicast format"<sup>2</sup> or a similar limitation.

For example, amended claim 1 recites a method for providing streaming media from a wide area network to a plurality of receivers. The method includes at least one aggregation module receiving a request for real-time streaming media accessible via a wide area network

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<sup>1</sup> Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

<sup>2</sup> Support for the amendments can be found at least at page 27, lines 11 to 21 and page 28, lines 13-22.

from each of a plurality of receivers. Each request includes an identifier representative of the receiver making the request. The method further includes using the at least one aggregation module, aggregating a plurality of requests into a single request and sending the single request for a single copy of the real-time streaming media to the wide area network. The single copy of the real-time streaming media is buffered at the at least one aggregation module. Using the buffered single copy of the real-time streaming media, the streaming media is delivered to the plurality of receivers. The manner by which the streaming media is delivered is changed to a multicast format.

Claim 10 claims a computer program product including computer readable medium with instructions for performing the acts of claim 1. Claim 11 is similar to claim 1 but varies in scope in at least elements related to aggregation modules, the type of media streamed, and the method for delivering data to receivers.

Claim 25 is a computer program product claim with similar scope to the other claims recited herein. Claim 25, however, recites elements in functional means language as outlined in the specification.

Claim 38 is directed to a system for implementing one embodiment of the invention, and includes at least an access module communicating with the plurality of receivers and the source module through the network. Claim 38 recites at least that the access module is configured to receive the request for media, aggregate requests by removing redundant requests to create a single request, send the single request for a single copy of the media to the network, and then subsequently change the manner by which the streaming media is delivered to a multicast format. Changing the manner by which the streaming media is delivered is performed based upon changes to the first connection rate as media is delivered to two or more of the plurality of receivers.

The art cited in the Office Action fails to show at least "changing the delivery of the streaming media from a first format to a multicast format." The art that is cited for showing similar functionality is *Brown*. However, close inspection of *Brown* reveals that *Brown* is not concerned with "changing" to a multicast format, but rather with allowing streaming media to be transmitted in a particular way as long as it does not constrain system resources. For example, *Brown* discloses that "the viewing node might request a VOD version of the interactive application" and "if the system's resources would not be constrained by the transmission of the

video-on-demand presentation of the interactive application, then this embodiment transmits the video-on-demand version of the interactive application to the viewing node." Abstract, Col. 2, lines 55-67 and Col 3, line 30 – col. 4, line 16. Significantly, while *Brown* only seeks to prevent constraints on system resources by denying requests (see element 650 in Figure 6) when the requests would constrain resources, the claims of the present application recite changing to a multicast format. *Brown* does not change, but rather simply denies. The other art cited by the Office Action does not compensate for *Brown*'s deficiencies.

Attention is further directed to new claims 49-52. For example, claim 49 recites that changing the delivery of the streaming media from a first format to a multicast format is performed when streaming media reduces connection performance by a defined percentage.<sup>3</sup> Neither *Brown*, nor any of the other art cited by the Office Action makes reference to connection performance being reduced by a given percentage.

Claim 50 recites changing the delivery of the streaming media from a first format to a multicast format is performed for receivers when a given number of the receivers request the same streaming media.<sup>4</sup> While *Brown* does show using a number of VOD transmissions to determine when to deny VOD requests, it does not show actually changing the manner of delivery based on a number of VOD requests. Rather, those VOD streams that were previously given authorization continue to play as VOD streams rather than being changed to NVOD streams. Col. 3, line 31 – Col. 4, line 16.

Claim 51 recites displaying a notice to a user indicating the channel of the unused channel where the user can tune to access the real-time streaming media.<sup>5</sup> None of the art cited in the office action shows displaying a notice to a user indicating the channel of the unused channel where the user can tune to access the real-time streaming media.

Claim 52 recites automatically and without user intervention tuning to the unused channel where the user can access the real-time streaming media.<sup>6</sup> None of the art cited in the office action shows this element.

In view of the foregoing, Applicants respectfully submit that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will

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<sup>3</sup> See at least page 33, lines 13-22 of Applicant's disclosure for support for this claim.

<sup>4</sup> See at least page 28, lines 13-22 of Applicant's disclosure for support for this claim.

<sup>5</sup> See at least page 34, line 17- page 35 line 1 of Applicant's disclosure for support for this claim.

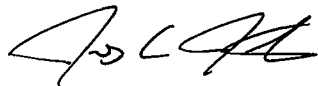
<sup>6</sup> See at least page 35, lines 1-5 of Applicant's disclosure for support for this claim.

be appreciated, however, that this should not be construed as Applicants acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicants reserve the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicants specifically request that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 6<sup>th</sup> day of November, 2006.

Respectfully submitted,



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